

Listing of the Claims

1. (Currently Amended) A An automotive component composition exhibiting improved heat resistance, pressure resistance, and fluid impermeability for the manufacture of automotive hoses, belts, seals, dampers and engine mounts which require resistance to heat, pressure and hydrocarbon fluids, said composition comprising consisting essentially of:

A) about 2 to 75% by weight of a an-elastomeric copolymer containing two or more vinyl esters wherein said two or more vinyl esters are different from each other consisting essentially of a first vinyl ester and a second vinyl ester wherein said first vinyl ester is a vinyl ester of a lower carboxylic acid and said second vinyl ester is a vinyl ester of a fatty acid;

B) 0 to about 75% by weight of an elastomeric polymer selected from the group consisting of an ethylene-vinyl ester of a lower carboxylic acid, chlorinated polyolefins, chlorosulfonated polyolefins, polychloroprene, ethylene-acrylic rubber, alkyl acrylate copolymer, polyvinyl acetate, ethylene-propylene-diene monomer, acrylonitrile-butadiene rubber, hydrogenated acrylonitrile-butadiene rubber, ethylene-propylene-hexadiene terpolymer, styrene-butadiene rubber, ethylene-propylene rubber, butyl rubber cis-polybutadiene, cis-polyisoprene, polyurethane, polyamide and combinations thereof; and

C) about 25 to 75% by weight additives selected from the group consisting of:

1) one or more processing aids selected from the group consisting of stearic acid, stearates, 1-octanedeccanamine, polyethylene, amines, oils, organic esters, organic phosphate esters and combinations thereof;

2) one or more fillers selected from the group consisting of carbon black, graphite silicone dioxide, fumed silica, precipitated silica, diatomaceous earth, magnesium silicate, aluminum silicate, mica, aluminum sulfate, calcium sulfate, wollastonite, molybdenum disulfide, clay, and combinations thereof

3) one or more plasticizers selected from the group consisting of hydrocarbons, glycols, aldehydes, ethers, esters, ether-ester, trioctyl trimellitate and combinations thereof;

4) one or more metal oxides and/or hydroxides selected from the group consisting of zinc oxide, zinc hydroxide, magnesium oxide, magnesium hydroxide, calcium oxide, calcium

hydroxide, aluminum hydroxide and combinations thereof;

5) one or more peroxides selected from the group consisting of 2,5-dimethyl-2, 5-di(t-butylperoxy)hexyne-3; 2,5-dimethyl-2,5-di(t-butylperoxy)hexane; α , α' -bis(t-butylperoxy)-p-diisopropylbenzene; dicumyl peroxide; di-t-butyl peroxide; 1,1-bis(t-butylperoxy)3,3,5-trimethylcyclohexane; 2,4-dichlorobenzoyl peroxide; benzoyl peroxide; p-chlorobenzoyl peroxide; 4,4-bis(t-butylperoxy)valerate; t-butylcumyl peroxide; di-t-amyl peroxide; t-butyl hydroperoxide and combinations thereof;

6) one or more coagents selected from the group consisting of maleimides, triallyl cyanurate, triallyl isocyanurate, diallyl terephthalate, 1,2-vinyl polybutadiene, di- and tri-functional methacrylates, diacrylates, metal ion versions thereof and combinations thereof; and

7) one or more antioxidants selected from the group consisting of phenols, hydrocinnamates, hydroquinones, hydroquinolines, diphenylamines, mercaptobenzimidazoles and combinations thereof.

2. (Canceled)

3. (Currently Amended) The composition of claim 1 wherein said ~~first vinyl ester is vinyl acetate and said second vinyl ester is vinyl laurate~~ copolymer is a vinyl acetate-vinyl laurate copolymer.

4. (Canceled)

5. (Currently Amended) The composition of claim 3 wherein said ~~elastomeric vinyl acetate-vinyl-laurate copolymer comprises~~ consists essentially of about 50 to 80% by weight vinyl acetate and about 50 to 20% by weight vinyl laurate.

6. (Currently Amended) The composition of claim ~~1~~ 3 ~~further comprising 0 to about 75% by weight of an elastomeric polymer selected from the group consisting of an ethylene vinyl ester of a C₄ to C₆ carboxylic acid, chlorinated polyolefin, chlorosulfonated polyolefin, polychloroprene, ethylene acrylic rubber, alkyl acrylate copolymer, polyvinyl acetate, acrylonitrile butadiene rubber,~~

~~hydrogenated acrylonitrile-butadiene rubber, ethylene-propylene-diene terpolymer, styrene-butadiene rubber, ethylene-propylene rubber, butyl rubber, cis-polybutadiene, cis-polyisoprene, polyurethane, polyamide and combinations thereof wherein said elastomeric polymer is an ethylene-vinyl acetate copolymer.~~

7. (Currently Amended) The composition of claim 6 wherein said elastomeric polymer is an ethylene-vinyl acetate copolymer ~~comprising~~ consists essentially of about 40 to 80% by weight vinyl acetate and about 60 to 20% by weight ethylene.

8. (Currently Amended) The composition of claim 1 ~~further comprising about 25 to 75% by weight of one or more~~ wherein said additives are selected from the group consisting of:

1) about 0.2 to 2% by weight one or more processing aids selected from the group consisting of stearic acid, stearates, 1-octanedecanamine, polyethylene, amines, oils, organic esters, organic phosphate esters and combinations thereof;

2) about 20 to 60% by weight one or more fillers selected from the group consisting of carbon black, graphite, silicone dioxide, fumed silica, precipitated silica, diatomaceous earth, magnesium silicate, aluminum silicate, mica, aluminum sulfate, calcium sulfate, wollastonite, molybdenum disulfide, clay, and combinations thereof

3) about 3 to 15% by weight one or more plasticizers selected from the group consisting of hydrocarbons, glycols, aldehydes, ethers, esters, ether-ester, trioctyl trimellitate and combinations thereof;

4) about 5 to 10% by weight one or more metal oxides and/or hydroxides selected from the group consisting of zinc oxide, zinc hydroxide, magnesium oxide, magnesium hydroxide, calcium oxide, calcium hydroxide, aluminum hydroxide and combinations thereof;

5) about 0.5 to 4% by weight one or more peroxides selected from the group consisting of 2,5-dimethyl-2,5-di(t-butylperoxy)hexyne-3; 2,5-dimethyl-2,5-di(t-butylperoxy)hexane; α , α' -bis(t-butylperoxy)-p-diisopropylbenzene; dicumyl peroxide; di-t-butyl peroxide; 1,1-bis(t-butylperoxy)3,3,5-trimethylcyclohexane; 2,4-dichlorobenzoyl peroxide; benzoyl peroxide; p-chlorobenzoyl peroxide; 4,4-bis(t-butylperoxy)valerate; t-butylcumyl peroxide; di-t-amyl

peroxide; t-butyl hydroperoxide and combinations thereof;

6) about 0.25 to 5% one or more coagents selected from the group consisting of maleimides, triallyl cyanurate, triallyl isocyanurate, diallyl terephthalate, 1,2-vinyl polybutadiene, di- and tri-functional methacrylates, diacrylates, metal ion versions thereof and combinations thereof; and

7) about 0.25 to 3% by weight one or more antioxidants selected from the group consisting of phenols, hydrocinnamates, hydroquinones, hydroquinolines, diphenylamines, mercaptobenzimidazoles and combinations thereof.

9. (Currently Amended) The composition of claim 8, wherein said composition comprises An automotive component composition exhibiting improved heat resistance, pressure resistance, and fluid impermeability for the manufacture of automotive hoses, belts, seals, dampers and engine mounts which require resistance to heat, pressure and hydrocarbon fluids, said composition consisting essentially of:

about 2 to 75% by weight vinyl acetate-vinyl laurate copolymer;

about 0 to 75% by weight ethylene-vinyl acetate copolymer;

about ~~0.8~~ 0.2 to 2% by weight one or more processing aids selected from the group consisting of stearic acid, stearates, 1-octanodecanamine, polyethylene, amines, oils, organic esters, organic phosphate esters and combinations thereof;

about 20 to 60% by weight one or more fillers selected from the group consisting of carbon black, graphite, silicone dioxide, fumed silica, precipitated silica, diatomaceous earth, ~~magnesium carbonate, calcium carbonate,~~ magnesium silicate, aluminum silicate, ~~titanium dioxide, talc,~~ mica, aluminum sulfate, calcium sulfate, wollastonite, molybdenum disulfide, clay, ~~calcium carbonate~~ and combinations thereof

about 3 to 15% by weight one or more plasticizers selected from the group consisting of hydrocarbons, glycols, aldehydes, ethers, esters, ether-ester, trioctyl trimellitate and combinations thereof;

about 5 ~~0~~ to ~~about~~ 10% by weight one or more metal oxides and/or hydroxides selected from the group consisting of zinc oxide, zinc hydroxide, magnesium oxide, magnesium hydroxide,

calcium oxide, calcium hydroxide, aluminum hydroxide and combinations thereof;

about 0.5 to 4% by weight one or more peroxides selected from the group consisting of 2,5-dimethyl-2, 5-di(t-butylperoxy)hexyne-3; 2,5-dimethyl-2,5-di(t-butylperoxy)hexane; α , α' -bis(t-butylperoxy)-p-diisopropylbenzene; dicumyl peroxide; di-t-butyl peroxide; 1,1-bis(t-butylperoxy)3,3,5-trimethylcyclohexane; 2,4-dichlorobenzoyl peroxide; benzoyl peroxide; p-chlorobenzoyl peroxide; 4,4-bis(t-butylperoxy)valerate; t-butylcumyl peroxide; di-t-amyl peroxide; t-butyl hydroperoxide and combinations thereof;

about 0.25 θ to about 5% by weight one or more coagents selected from the group consisting of maleimides, triallyl cyanurate, triallyl isocyanurate, diallyl terephthalate, 1,2-vinyl polybutadiene, di- and tri-functional methacrylates, diacrylates, metal ion versions thereof and combinations thereof; and

about 0.25 θ to about 3% by weight one or more antioxidants selected from the group consisting of phenols, hydrocinnamates, hydroquinones, hydroquinolines, diphenylamines, mercaptobenzimidazoles and combinations thereof.

10. (Currently Amended) The composition of claim 9, wherein said composition comprises:

about 2 to 75% by weight vinyl acetate-vinyl laurate copolymer containing about 50 to 80% by weight vinyl acetate and about 50 to 20% by weight vinyl laurate;

about 0.2 to 0.7% by weight stearic acid;

about 23 to 38% by weight carbon black;

about 2 to 5% by weight silicon dioxide;

about 3 to 7% by weight trioctyl trimellitate;

about 0.5 θ to about 7% by weight adipate type plasticizer;

about 5 θ to about 8% by weight magnesium oxide;

about 0.1 to 0.75% by weight 1-octanedecanamine;

about 0.1 to 0.75% by weight organic phosphate ester;

about 0.5 to 4% by weight organic peroxide one or more peroxides selected from the group consisting of 2,5-dimethyl-2, 5-di(t-butylperoxy)hexyne-3; 2,5-dimethyl-2,5-di(t-butylperoxy)hexane; α , α' -bis(t-butylperoxy)-p-diisopropylbenzene; dicumyl peroxide; di-t-butyl

peroxide; 1,1-bis(t-butylperoxy)3,3,5-trimethylcyclohexane; 2,4-dichlorobenzoyl peroxide; benzoyl peroxide; p-chlorobenzoyl peroxide; 4,4-bis(t-butylperoxy)valerate; t-butylcumyl peroxide; di-t-amyl peroxide; t-butyl hydroperoxide and combinations thereof;

about 0.25 to 1% by weight triallyl cyanurate;

about 0.25 to 1% by weight N,N', n-phenylenedimaleimide; and

about 0.25 to 3% by weight antioxidant selected from the group consisting of phenols, hydrocinnamates, hydroquinones, hydroquinolines, diphenylamines, mercaptobenzimidazoles and combinations thereof.

11. (Currently Amended) The composition of claim 9, wherein said composition comprises:

about 5 to 30% by weight vinyl acetate-vinyl laurate copolymer containing about 50 to 80% by weight vinyl acetate and about 50 to 20% by weight vinyl laurate;

about 20 to 50% by weight ethylene-vinyl acetate copolymer containing about 50 to 80% by weight vinyl acetate and about 80 to 50% by weight ethylene;

about 0.2 to 0.7% by weight stearic acid;

about 23 to 38% by weight carbon black;

about 2 to 5% by weight silicon dioxide;

about 3 to 7% by weight trioctyl trimellitate;

about 0.5 to about 7% by weight adipate type plasticizer;

about 5 to about 8% by weight magnesium oxide;

about 0.1 to 0.75% by weight 1-octanedecanamine;

about 0.1 to 0.75% by weight organic phosphate ester;

about 0.5 to 4% by weight ~~organic peroxide one or more peroxides~~ selected from the group consisting of 2,5-dimethyl-2, 5-di(t-butylperoxy)hexyne-3; 2,5-dimethyl-2,5-di(t-butylperoxy)hexane; α , α' -bis(t-butylperoxy)-p-diisopropylbenzene; dicumyl peroxide; di-t-butyl peroxide; 1,1-bis(t-butylperoxy)3,3,5-trimethylcyclohexane; 2,4-dichlorobenzoyl peroxide; benzoyl peroxide; p-chlorobenzoyl peroxide; 4,4-bis(t-butylperoxy)valerate; t-butylcumyl peroxide; di-t-amyl peroxide; t-butyl hydroperoxide and combinations thereof;

about 0.25 to 1% by weight triallyl cyanurate;

about 0.25 to 1% by weight N,N', n-phenylenedimaleimide; and
about 0.25 to 3% by weight antioxidant selected from the group consisting of phenols, hydrocinnamates, hydroquinones, hydroquinolines, diphenylamines, mercaptobenzimidazoles and combinations thereof.

12-40 (Canceled)